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AMERICAN MATHEMATICAL SOCIETY

Notices

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Edited by J. H. CURTISS

ISSUE NO. 19 *OCTOBER, 1956*

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CALENDAR OF MEETINGS

Note: This Calendar lists all of the meetings which have been approved by the Council up to the date at which this issue of the *Notices* was sent to press. The meeting dates which fall rather far in the future are subject to change. This is particularly true of the meetings to which no numbers have yet been assigned.

Meeting No.	Date	Place	Deadline for Abstracts
528	November 17, 1956	Pasadena, California	Oct. 4
529	November 23–24, 1956	Evanston, Illinois	Oct. 4
530	November 30–December 1, 1956	Lexington, Kentucky	Oct. 4
531	December 27–29, 1956 (63rd Annual Meeting)	Rochester, New York	Nov. 13
	April 5–6, 1957	New York, New York	Feb. 20
	August 26–30, 1957 (62nd Summer Meeting)	University Park, Pennsylvania	July 12
	October 26, 1957	Washington, D. C.	Sept. 12
	November, 1957	Columbia, Missouri	
	January, 1958 (64th Annual Meeting)		
	November, 1958	Evanston, Illinois	
	November, 1959	Detroit, Michigan	

The *Notices* of the American Mathematical Society is published seven times a year, in February, April, June, August, October, November, and December. Inquiries should be addressed to the American Mathematical Society, Ann Arbor, Michigan, or 190 Hope Street, Providence 6, R. I.

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News Items and Announcements should be sent to *Notices* of the American Mathematical Society, 190 Hope Street, Providence 6, R. I.

FIVE HUNDRED TWENTY-SEVENTH MEETING

Cambridge, Massachusetts

October 27, 1956

PROGRAM

The five hundred twenty-seventh meeting of the American Mathematical Society will be held on Saturday, October 27, 1956, at the Massachusetts Institute of Technology, Cambridge, Massachusetts, in conjunction with a meeting of the Society for Industrial and Applied Mathematics.

Professor J-P. Serre of the Collège de France and the Institute for Advanced Study will deliver an address entitled *Coverings of algebraic varieties* at 2:00 P.M. in Room 6-120 by invitation of the Committee to Select Hour Speakers for Eastern Sectional Meetings.

Sessions for contributed papers will be held at 10:00 A.M. in Rooms 6-120, 2-190, 4-270, and at 3:15 P.M. in Rooms 6-120, 4-270.

The meeting of the Society for Industrial and Applied Mathematics will be held at 3:15 P.M. in Room 2-190. The program is concerned with mathematical problems arising from the study of reliability in digital computers. Dr. R. J. Nelson of the Case Institute of Technology will speak on *Increasing reliability by duplication of components and systems*, and Dr. H. H. Goldstine of the Institute for Advanced Study will speak on *Remarks on von Neumann's probabilistic logics*.

The Mathematics Common Room, 2-251, will be available for informal discussions.

The Massachusetts Institute of Technology is located on the Cambridge side of the Charles River approximately one to two miles from the various railway stations in Boston. It is easily accessible by automobile, subway, trackless trolley, or taxicab. There will be ample free parking space in the East Parking Lot of the Institute grounds for those travelling by automobile. The entrance to this parking lot is at the corner of Main and Vassar Streets.

The sessions will be held in Buildings 2, 4, and 6. The most convenient entrance for those coming by automobile or subway is the entrance at the Northwest corner of the Hayden Memorial Library, near Buildings 2 and 6. It is a 7–10 minute walk from the Kendall Square

Station of the Cambridge-Dorchester subway. This subway may be boarded at various points including South Station, Boston. Those coming by taxicab or trackless trolley should enter at the main entrance, 77 Massachusetts Avenue. Most of the entrances except the two mentioned above are closed on Saturday.

A registration desk will be maintained in Building 2.

The time indicated is Eastern Daylight Saving Time.

PROGRAM OF THE SESSIONS

(Time limit for each contributed paper, 10 minutes)

SATURDAY, 10:00 A.M.

Session on Analysis, Room 6-120, Building 6

(1) The closure of translations in L^P
Dr. C. S. Herz, Cornell University

(2) On the continuity properties of functions satisfying a condition of Sirvint's
Dr. D. A. Edwards, Oxford University and Yale University
(Introduced by Mr. D. G. Kendall)

(3) Quasi interior points and separation properties of cones in a linear space
Professor R. E. Fullerton, University of Maryland

(4) The topology of almost uniform convergence
Professor J. W. Brace, University of Maryland

(5) Eigenfunction expansions for formally self-adjoint partial differential operators
Professor F. E. Browder, Yale University

(6) A result on derivations of operator algebras
Dr. E. L. Griffin, Jr., University of Michigan

(7) A Schwarz inequality for convex operator functions
Dr. Chandler Davis, Kenyon & Eckhardt, Inc. and Columbia University

(8) Lacunary Fourier series on noncommutative groups
Dr. Sigurdur Helgason, Princeton University

(9) Continuation of holomorphic functions on Stein manifolds. Connectivity of the boundary of pseudo-convex domains
Dr. H. J. Bremermann, Institute for Advanced Study

Session on Applied Mathematics, Statistics and Probability, Room 2-190, Building 2

(10) Biharmonic eigenvalue problem
Dr. Gabriel Horvay, General Electric Company, Schenectady

(11) A postulational foundation of special theories of relativity
Professor Domina E. Spencer, University of Connecticut

(12) Determination of upper and lower bounds for solutions of linear differential equations
Mr. R. M. Durstine and Dr. D. H. Shaffer, Westinghouse Research Laboratories

(13) On the numerical solution of $u_{xy} = f(x, y, u, u_x, u_y)$
Professor J. B. Dias, University of Maryland and Massachusetts Institute of Technology

(14) The error estimation in an approximate solution of an ordinary second-order differential equation
Dr. E. H. Bareiss, David Taylor Model Basin

(15) Pointwise bounds in Neumann problems
Professor L. E. Payne and Professor H. F. Weinberger, University of Maryland

(16) Probability analysis of simultaneous instrument errors
Dr. M. A. Hyman, Remington-Rand UNIVAC

(17) Determining bounding distribution functions for nonlinear functions of random variables
Mr. Ron Manly, Ramo-Wooldridge Corporation
(Introduced by Mr. R. R. Christensen)

(18) The average first-recurrence time
Professor Bernard Friedman, New York University, and Professor Ivan Niven, University of Oregon

Session on Algebra and Theory of Numbers, Room 4-270, Building 4

(19) Non-isomorphic approximately finite factors
Dr. Harold Widom, Cornell University

(20) Arithmetic in algebras. Preliminary report
Pvt. Walter Feit, U. S. Army

(21) Coherence invariant mappings of symmetric transformations
Professor H. G. Jacob, Johns Hopkins University

(22) Subgroups of the direct product of two groups
Professor Joachim Lambek, McGill University

(23) Cohomology of additive polynomial and n-th power mappings of fields
Professor George Whaples, Indiana University

(24) Convex functions of quadratic forms
Professor M. D. Marcus, National Bureau of Standards, Washington, and University of British Columbia

(25) A theorem on the characteristic roots of symmetric matrices
Professor I. N. Herstein, Ramo-Wooldridge Corporation, Yale University, and University of Pennsylvania

(26) On the theorems of Ledermann and Ostrowski on positive matrices
Professor A. T. Brauer, University of North Carolina

SATURDAY, 2:00 P.M.

General Session, Room 6-120, Building 6

Coverings of algebraic varieties (One hour)
Professor J-P. Serre, Collège de France and Institute for Advanced Study

SATURDAY, 3:15 P.M.

Session on Analysis, Room 6-120, Building 6

(27) Expansions in series of solutions of difference-differential equations
Mr. D. G. Dickson, Columbia University

(28) Mapping of multiply connected domains by solutions of partial differential equations. Preliminary report
Mr. S. V. Parter, Los Alamos Scientific Laboratory

(29) On Cauchy's problem. Preliminary report
Professor P. D. Lax, New York University

(30) An inequality and uniqueness theorem for semilinear hyperbolic systems in two independent variables
Professor G. L. Spencer, University of Maryland

(31) A best possible result in the uniqueness of double trigonometric series
Professor V. L. Shapiro, Rutgers University

(32) On the determination of the phase of a Fourier integral. I
Dr. E. J. Akutowicz, Massachusetts Institute of Technology

(33) Approximation in norm of translates by Taylor series. Preliminary report
Mr. D. S. Greenstein, Radio Corporation of America and University of Pennsylvania

(34) An existence proof for a Stefan-like problem. Preliminary report
Dr. W. T. Kyner, New York University

(35) The problem of Milloux for functions analytic in an open annulus
Rev. C. J. Lewis, Fordham University

Session on Geometry, Topology, Logic and Foundations, Room 4-270, Building 4

(36) A theorem on flows in networks
Professor David Gale, Brown University

(37) On curves of minimal length with a constraint on average curvature, and with prescribed initial and terminal positions and tangents
Professor L. E. Dubins, Carnegie Institute of Technology

(38) Measure theory of area and its tools. (Affine geometry)
Dr. Saly Ruth Struik, Belmont, Massachusetts

(39) Classification of finite 2-complexes
Mr. E. F. Whittlesey, Trinity College

(40) A combinatorial topological solution of the problem of Quine
Dr. J. P. Roth, Institute for Advanced Study and IBM Research Center

(41) On the axioms for order and succession
Professor Kurt Bing, Rensselaer Polytechnic Institute

SUPPLEMENTARY PROGRAM
(To be presented by title)

(42) Metric arcs with Menger curvature. I
Mr. W. R. Abel and Professor L. M. Blumenthal, University of Missouri

(43) On the determination of the phase of a Fourier integral. II
Dr. E. J. Akutowicz, Massachusetts Institute of Technology

(44) A note on an integral inequality
Professor P. R. Beesack, McMaster University

(45) On a class of lattice-ordered rings. I
Dr. Barron Brainerd, University of British Columbia

(46) On a class of lattice-ordered rings. II
Dr. Barron Brainerd, University of British Columbia

(47) On the geometry of bicomplex numbers
Mr. D. W. Crowe, University of British Columbia

(48) Expansions of solutions of infinite order differential equations
Mr. D. G. Dickson, Columbia University

(49) A theorem on the multi-index transportation problem. Preliminary report
Professor P. S. Dwyer, University of Michigan

(50) Eigenvalues and eigenvectors of real non-symmetric matrices. Preliminary report
Dr. M. A. Hyman, Remington-Rand UNIVAC

(51) Finding complex roots by interpolation. Preliminary report
Dr. M. A. Hyman, Remington-Rand UNIVAC

(52) A note on best numerical integration formulas
Dr. M. A. Hyman, Remington-Rand UNIVAC

(53) Lattices with involution
Dr. J. A. Kalman, Auckland University College

(54) On the second dual of the space of continuous functions
Professor Samuel Kaplan, Wayne State University

(55) On the continuity properties of vector-valued functions of bounded variation
Mr. D. G. Kendall, Oxford University, and Mr. J. E. Moyal, Manchester University

(56) On the deviations of the empiric distribution function of vector chance variables
Professor J. C. Kiefer and Professor Jacob Wolfowitz, Cornell University

(57) Isotropy group and holonomy group
Dr. Shoshichi Kobayashi, University of Washington

(58) A characterization of n-groups
Dr. D. W. Robinson, Case Institute of Technology

(59) Distributions on Hilbert space and canonical sets of operators
Professor I. E. Segal, University of Chicago

(60) The third obstruction in complex projective spaces
Mr. Norman Stein, Princeton University and Cornell University

(61) On infrapolynomials with prescribed constant terms. Preliminary report
Professor J. L. Walsh, Harvard University

(62) On pseudo-compact spaces. I
Professor Chien Wenjen, Texas Technological College

(63) On pseudo-compact spaces. II. Preliminary report
Professor Chien Wenjen, Texas Technological College

R. D. Schafer
Associate Secretary

Storrs, Connecticut
September 13, 1956

PROGRAMS OF OTHER ORGANIZATIONS

THE INSTITUTE OF MANAGEMENT SCIENCES

Third Annual International Meeting
Hotel Statler, Los Angeles
October 18–19, 1956

This will be a two-day meeting. It will include technical paper presentations by outstanding individuals from leading American universities and industrial concerns as well as representatives from industries of at least one European country. The theme for the conference will be *Management Sciences–a Progress Report.* A partial program is as follows:

Session I – *Industrial Applications of Linear Programming*

Dr. George B. Dantzig, Chairman

Abraham Charnes and William Cooper (Purdue University and Carnegie Institute of Technology) *Industrial Applications of Linear Programming.*

Pierre B. Massé and M. Gibrat (Electricite de France) *Application of Linear Programming to Investments in the Electric power Industry.*

W. W. Garvin, H. W. Crandall, J. B. John, and R. A. Spellman (California Research Corporation and Standard Oil Company of California) *Application of Linear Programming in the Oil Industry.*

William Orchard-Hays (The RAND Corporation) *Existing and Proposed Linear Programming Computing Capabilities–A Review of RAND Conference.*

Session IV – *Management Scie. :es and Logistics*

Dr. Murray Geisler, Chairman

Walter Jacobs (Department of the Air Force) *Air Force Progress in Logistics Planning.*

Thomas M. Whitin (Massachusetts Institute of Technology) *Applications of Economic Theory in Logistics.*

William H. Marlow (The George Washington University) *Some Problems in Logistics Research.*

John A. Postley (The RAND Corporation) *Large Data Handling Equipment as a Commercial Tool.*

Strother H. Walker (The Johns Hopkins University) *Application of Gaming Methods to Logistics Research.*

Session VI – *Advanced Techniques in Management Science*

Professor Max A. Woodbury, Chairman

Jack Smith (Navy Management Office) *Solution to Allocation and Procurement Problems Using Analytical Methods of Assigning Values to Qualitative Factors.*

William Karush (The University of Chicago and the Ramo-Wooldridge Corporation) *On a Class of Minimum-Cost Problem*

Russell Ackoff and C. West Churchman (Operations Research Group, Case Institute of Technology) *Value Measurement and their Role in Decision-Making.*

Session VII – *Behavioral Sciences and Management*

Professor Ralph W. Tyler, Chairman

Harold Guetzkow (Carnegie Institute of Technology) *Laboratory Development of Organizations with a Division of Labor.*

Harry H. Herman (The RAND Corporation) *System Training as Developed at RAND.*

Ralph W. Tyler (Stanford University) *The Role of Behavioral Science Research in the Development of Management Sciences.*

WESTERN JOINT COMPUTER CONFERENCE

Hotel Statler, Los Angeles
February 26–28, 1957

The conference theme will be *Techniques for Reliability.* The conference will be sponsored by the Institute of Radio Engineers, the American Institute of Electrical Engineers, and the Association for Computing Machinery. It will be organized with parallel sessions, one devoted to the conference theme and the other to outstanding papers of more general nature. Papers reflecting recent developments in components, systems and applications, both analogue and digital, will be considered.

Summaries of papers must be received by October 15 by the Western Joint Computer Conference Program Committee Chairman. Papers should be addressed to Louis G. Walters, 1234 Air Way Drive, Glendale 1, California. Each summary should state specifically the essential new material of the paper and should be of sufficient length to permit evaluation; a minimum of 500 words is suggested. The full paper is desired if avail-

able. Prospective speakers will be notified by November 15 if their paper has been selected for presentation. Final papers in reproducible form must be submitted by January 15, 1957 for integration into the proceedings.

NEWS ITEMS AND ANNOUNCEMENTS

FELLOWSHIP AND RESEARCH OPPORTUNITIES IN MATHEMATICS DURING THE YEAR 1957–58. The Division of Mathematics of the National Academy of Sciences–National Research Council has issued the following announcement concerning fellowship and research opportunities during the year 1957–58. The announcement is intended only to provide a partial list of various opportunities which are available.

1. *National Science Foundation* fellowships. The National Science Foundation sponsors various fellowship programs in the sciences, including mathematics.

Predoctoral fellowships are awarded annually at the First Year, Intermediate, and Terminal Year levels of graduate study. Applications for 1957–58 will be available in October 1956 from the National Academy of Sciences–National Research Council until the closing date in early January 1957; Award date–March 15, 1957.

Science Faculty fellowships for college science teachers (including mathematics) who plan to continue teaching and wish to increase their competence as teachers will be offered for the first time in the fall of 1956. Eligibility requirements include a baccalaureate degree and three (3) years of full-time experience in teaching natural science subjects at the collegiate level. Applications will be available in October 1956; the deadline for filing applications will be in January 1957; awards will be made on March 20, 1957. A Second Award Period will be opened in May 1957 and closed in July 1957. Awards will be made in August 1957. Address all inquiries for information and applications to National Science Foundation, Washington 25, D.C.

Postdoctoral fellowships (in making inquiry about postdoctoral awards specify program):

(1) *Regular* postdoctoral fellowships–primarily for recent recipients of the doctoral degree; awarded semiannually. Program for 1957–58 concurrent with predoctoral program (see above) except that program closes in December. Information and applications will be available from NAS-NRC. (A second award period for 1957 will be opened in July and will close in September. Awards will be announced in October 1957.)

(2) *Senior* postdoctoral fellowships–are open to persons who have held a doctoral degree in one of the basic fields of science for a minimum of five (5) years at time of application, or who have had equivalent training and experience. Awarded semiannually. Applications for 1957-58 will be available from the National Science Foundation, Washington 25, D.C., in November 1956; the deadline for filing applications will

be about January 15, 1957 and awards will be announced on March 20, 1957. (A second award period will be opened in May 1957 and closed in July 1957. Awards will be announced in August 1957.)

Research Grants. The National Science Foundation also supports basic research in the mathematical sciences by means of grants. While proposals for such support are accepted at any time, individuals desiring support to begin in the summer or at the beginning of a fall semester should preferably submit their proposals in the mathematical sciences by November 1; persons desiring support to begin in the spring semester should preferably submit their proposals by May 1. A guide called *Grants for Scientific Research* for preparing proposals is available upon request to the Program Director for Mathematical Sciences, National Science Foundation, 1520 H Street, N.W., Washington 25, D. C.

2. *Office of Naval Research.* The Office of Naval Research, through contracts with universities and other organizations, supports basic research in broadly selected fields of mathematics. Proposals should be directed to the Mathematics Branch, Office of Naval Research, Washington 25, D. C. (See below for a further news item relating to the Office of Naval Research.)

3. *Air Force Office of Scientific Research.* The Air Force Office of Scientific Research supports research in mathematics directly through contracts with colleges, universities, foundations and industrial laboratories. Such organizations are encouraged to submit proposals for research in mathematical fields in which they specialize. Proposals should be mailed to the Commander, Air Force Office of Scientific Research, Attn: Mathematics Division, Washington 25, D. C.

4. *Office of Ordnance Research, U. S. Army.* Among the functions of the Office of Ordnance Research is the support of basic research in mathematics. Proposals for projects are ordinarily made by individual scientists or groups of scientists in a form which leads to a contract between the Office of Ordnance Research and a university or research laboratory. For further information write to Commanding Officer, Office of Ordnance Research, Box CM, Duke Station, Durham, North Carolina.

5. *Fulbright Awards—Public Law 584 (79th Congress).* Approximately 350 awards are offered annually for university lecturing and postdoctoral research in all academic fields in Australia, Burma, Ceylon, Chile, India, New Zealand, Peru, the Philippines, Thailand (competition for the preceding countries closes April 15, 1957); Austria, Belgium-Luxembourg, Denmark, Egypt, France, Germany, Greece, Iraq, Israel, Italy, Japan, the Netherlands, Norway, Pakistan, and the United Kingdom, including colonial dependencies (competition for the latter countries closes some-

time during the summer of 1957; the precise date will be announced in May 1957). In both cases awards are for the academic year 1958–59, but in the former group of countries the academic year begins in the spring or summer instead of the autumn. Awards are payable in foreign currency and usually include travel for the grantee, but not for members of his family, and a maintenance allowance, which may be adjusted in relation to the number of accompanying dependents up to four. Requests for information should be addressed to the Committee on International Exchange of Persons, Conference Board of Associated Research Councils, 2101 Constitution Avenue, Washington 25, D. C. (See below for a further news item on Fulbright awards.)

6. *National Research Council-National Bureau of Standards Post-doctoral Research Associateships in the Physical and Mathematical Sciences.* Research associateships, supported by the National Bureau of Standards and awarded on recommendations of the National Academy of Sciences-National Research Council, are offered to provide young investigators of unusual promise and ability the opportunity for basic research in various branches of the physical and mathematical sciences. These associateships are open only to citizens of the United States and are tenable at the National Bureau of Standards in Washington, D. C. Applicants must have the Ph.D. or Sc.D. degree, or their equivalent. The term of the appointment is for one calendar year.

The National Bureau of Standards agrees to provide the necessary facilities and equipment incident to the research of the associate. No specific services are required, and it is expected that the associate will devote essentially his full time to research in his field of interest. No commitment either on the part of the associate or the sponsor with regard to later employment is implied by the acceptance of an award. A candidate must present evidence that he will be accepted as an associate by the scientific adviser with whom he will study.

It is expected that approximately 10 awards may be made in a total of fourteen fields, of which the following are of particular interest to mathematicians: Pure and Applied Mathematics; Applied Mathematical Statistics; Numerical Analysis; Statistical Mechanics. For further information write to Fellowship Office, National Research Council, 2101 Constitution Avenue, Washington 25, D. C.

The associateships will be civil service appointments, and applicants will be expected to conform to civil service requirements as to citizenship, health and security.

FULBRIGHT SCHOLARSHIPS FOR GRADUATE STUDY. Attention is called by the Institute of International Education to the fact that Fulbright scholarships for graduate study abroad are open to professional persons not now engaged in college or university study. Any U.S. citizen with a bachelor's degree is eligible for these foreign study awards. Applicants must be at the pre-doctoral level and normally under age of 35.

November 1, 1956, is the deadline for submitting applications for the 1957–58 academic year. Requests for application forms must be postmarked by October 25. Application blanks and a brochure describing the Fulbright program are available at the Institute of International Education, 1 East 67th Street, New York City, and at the Institute's regional offices in Chicago, Denver, Houston, San Francisco and Washington. Candidates-at-large may apply directly to the Institute.

Opportunities are offered in the following countries in which the Fulbright program operates: Australia, Austria, Belgium and Luxembourg, Burma, Chile, Denmark, Finland, France, Germany, Greece, India, Italy, Japan, the Netherlands, New Zealand, Norway, the Philippines and the United Kingdom.

Eligibility requirements for Fulbright awards are: United States citizenship; a college degree or its equivalent at the time the award is taken up; knowledge of the language of the country of application sufficient to carry on the proposed study; and good health. Preference is given to candidates not more than 35 years of age.

Final selection of Fulbright grantees is made by the Board of Foreign Scholarships, ten leading educators and educational administrators appointed by the President of the United States. The Institute of International Education is the agency designated by the Board and the Department of State to screen applications for study abroad.

Fulbright awards are made entirely in the currencies of participating countries abroad. The Fulbright Act authorizes the use of foreign currencies and credits acquired through the sale of surplus property abroad for educational exchanges. The awards cover transportation, tuition, books and maintenance for one academic year.

POSTDOCTORAL RESEARCH ASSOCIATESHIPS IN MATHEMATICS OF THE OFFICE OF NAVAL RESEARCH. Under contract with various universities, the Office of Naval Research plans to continue for a second year its support of a number of postdoctoral research associateships in pure mathematics. The contracts will provide a salary of $5,000 for the academic year and an allowance for incidental expenses, including travel.

Appointments will be made on a competitive basis. Sole consideration

will be given to the merits of the proposed research and the ability of the applicant as supported by letters of recommendation. Applications will be screened by the Office of Naval Research on the basis of an evaluation by the N.R.C. Committee on Mathematics, Advisory to the Office of Naval Research, consisting of S. S. Cairns, Chairman, L. V. Ahlfors, M. H. Heins, S. Kakutani, I. Niven, B. J. Pettis, and J. B. Rosser.

At the recommendation of the Committee, the following universities are being invited to participate in this program: Brown University, Columbia University, Cornell University, University of Illinois, Johns Hopkins University, University of Michigan, Northwestern University, Tulane University, University of Virginia, University of Washington, University of Wisconsin, Yale University.

Applications for the academic year 1957–58 must be submitted by January 1, 1957. Applicants will receive notification of the final decision not later than April 1, 1957. Application forms and further information may be obtained from Dr. Arthur Grad, Mathematics Branch, Office of Naval Research, Washington 25, D. C.

A READERSHIP IN PURE OR APPLIED MATHEMATICS AT THE UNIVERSITY OF OXFORD. The University of Oxford, England, proposes to appoint a Reader in Pure or Applied Mathematics at a stipend in the scale £1400–£1650.

The initial stipend will be fixed with reference to age and qualifications. The person appointed will be required to become a member of the Federated Superannuation System for Universities, and an allowance of £50 per annum for each dependent child is payable. Applications (six copies), including a statement of age, qualifications, and experience and published works, and giving the names of two referees, should be sent to the Secretary of Faculties, University Registry, Oxford, not later than October 31, 1956. The person appointed will be required to take up office as soon as possible after January 1, 1957, and in any case not later than October 1, 1957.

The Reader will be required to engage in advanced study or research and to give in each academic year not less than thirty-six lectures or classes spread over not less than six weeks of each term. The reader may supplement his stipend by giving private tuition, but he will not be allowed to undertake more than six hours of private tuition a week without leave of the General Board.

Further information may be obtained from Mr. K. C. Turpin, Secretary of Faculties, Oxford University, England.

A POSTDOCTORAL RESEARCH FELLOWSHIP FOR WOMEN OFFERED BY SIGMA DELTA EPSILON. This graduate women's scientific fraternity is offering for the year 1957–58 a $1600 postdoctoral research fellowship to women specializing in the mathematical, physical, or biological sciences. Applications should be submitted before February 1, 1957 to the Fellowship Awards Board.

Women with the equivalent of a Ph.D. degree, carrying on research in the mathematical, physical, or biological sciences, who need financial assistance and give evidence of high ability and promise are eligible. During the term of her appointment the appointee must devote the major part of her time to an approved research project, and not engage in other work for remuneration (unless such work shall have received the written approval of the Board before the award of the fellowship).

Application blanks may be obtained from Dr. Dorothy Quiggle, Petroleum Refining Laboratory, The Pennsylvania State University, University Park, Pennsylvania. Announcement of the award will be made early in March 1957.

GRANTS BY THE NATIONAL SCIENCE FOUNDATION IN SUPPORT OF COMPUTATION CENTERS. In the April 1955 *Notices*, there was a news item which stated that an Ad Hoc Panel on University Computing Facilities convened by the National Science Foundation had recommended to the Foundation that it should entertain proposals from universities or from regional groups of universities for grants to set up modern computation laboratories. The first in a series of such grants in support of computation centers and research in numerical analysis have now been announced. Grants totaling $135,500 have been awarded as follows: California Institute of Technology, $38,000; Massachusetts Institute of Technology, $30,000; Oregon State College, $20,000; University of Washington, $17,500; University of Wisconsin, $30,000. The funds will be variously used to establish the nucleus for a computing center where none exists, to extend existing centers, and to pay rental for computing time. In some instances part of the funds will be used for salaries of research assistants.

The Foundation's program is designed to strengthen basic research in a number of fields by providing research investigators access to computing facilities.

A NATIONAL SCIENCE FOUNDATION GRANT TO THE DEPARTMENT OF MATHEMATICS AT CARLETON COLLEGE. It has been announced by Carleton College, of Northfield, Minnesota that the Department of Mathematics has been awarded a four-year grant for $27,300.00 by the

National Science Foundation.

The award is intended to enable the Carleton Mathematics Department to give special attention to students who show unusual promise in mathematics regardless of their field of major interest. For such students in their first two years, the department will offer special small sections in which original work will be emphasized, and for advanced students, faculty-student collaboration in study and research will be offered. Research assistantships will be available for juniors and seniors who show unusual mathematical potential. These will be one year appointments, made on the basis of interest and ability, regardless of the student's declared major.

FEDERAL SUPPORT FOR SCIENCE STUDENTS IN HIGHER EDUCATION. A report entitled "Federal Support for Science Students in Higher Education" recently released by the National Science Foundation and obtainable from the Superintendent of Documents, Washington 25, D. C., for 30 cents, has released some interesting statistics concerning the support now being given by the Federal Government to college students. It reveals that nearly 390,000 undergraduate, graduate, and postdoctoral students were supported by the Government in 1954, at an average cost per student of more that $1,000. Of this number, more than 101,000 were preparing for careers in the sciences, including the social sciences. The percentage of Government-supported students studying the sciences increased with the educational level. While only one-fourth (82,000) of the undergraduate group were studying in the sciences, approximately half (18,000) of the graduate students, and virtually all (1300) of those receiving such assistance for postdoctoral training and research were pursuing scientific studies. More than one out of every three students receiving Federal aid for graduate study in the sciences was employed as a research assistant on research grants or contracts awarded by Federal agencies to senior investigators at colleges and universities. Veteran's educational benefits provided support to more than a quarter of all federally aided graduate students.

SOME ACTIVITIES OF THE INTERNATIONAL MATHEMATICAL UNION. A. The election of Poland to membership in the Union became effective on July 15, 1956. B. The following colloquia will be supported by the International Mathematical Union in 1957:

1. *International Colloquium on Finite Groups*
   Tubingen, summer 1957
   Chairman of the Organizing Committee:
   Professor H. Wielandt.

2. *International Colloquium on the Theory of Functions*
Helsinki, August 12 to 18, 1957
Chairman of the Organizing Committee:
Professor Rolf Nevanlinna.

THE MATHEMATICS DIVISION OF THE AMERICAN SOCIETY FOR ENGINEERING EDUCATION met on June 25–29, 1956 at Iowa State College. Four well-attended sessions were held, including a joint conference with the Iowa Section of the Mathematical Association of America. The following new officers of the Division were elected at the annual business meeting: Chairman, Walter G. Warnock, Rensselaer Polytechnic Institute; Secretary, William E. Restemeyer, University of Cincinnati; Director, George B. Thomas, Massachusetts Institute of Technology; Director, Cletus O. Oakley, Haverford College; Director and Representative to General Council of ASEE, Richard S. Burington, Department of Navy.

The next annual meeting of the Mathematics Division of the ASEE will be held in June 1957 at Cornell University. For further information write to Professor William E. Restemeyer, University of Cincinnati.

ORACLE APPLICATIONS PROGRAM. Arrangements have been announced to make available to universities located in the mid-south, the services of the ORACLE (Oak Ridge Automatic Computer and Logical Engine), which is Oak Ridge National Laboratory's high-speed electronic digital computer. This new ORACLE Applications Program is being conducted by the University Relations Division of the Oak Ridge Institute of Nuclear Studies and the Mathematics Panel of Oak Ridge National Laboratory. The program is designed to make available to university personnel not only computer time, but also the combined experience and knowledge of members of the Mathematics Panel, to assist universities with computational problems arising in connection with their research activities. Further information on the ORACLE Applications Program may be obtained by writing to Dr. T. W. Hildebrandt, ORACLE Applications, University Relations Division, Oak Ridge Institute of Nuclear Studies, P. O. Box 117, Oak Ridge, Tennessee.

NATIONAL BUREAU OF STANDARDS TO BE RELOCATED. A tract of approximately 550 acres of land near Gaithersburg, Maryland has been selected for relocation of the Washington laboratories of the National Bureau of Standards. The move will permit the Bureau to plan new buildings to replace present research facilities, which are at present situated on Connecticut Avenue at Tilden Street in Washington.

They have been there since 1903. The new site will provide the benefits of a rural location where scientific programs can be undertaken without interfering with community life and without urban interference. The Congress has appropriated funds for site acquisition. Transfer of operations to the new location is expected to be completed in about five years.

BUSINESS AGENTS FOR FOREIGN SOCIETIES. At a recent meeting of the Board of Trustees it was decided that as a matter of general policy, financial transactions between the Society and foreign scientists relating to reciprocity dues and the sale of books and journals published by the Society, should in the future be handled by the Headquarters Offices of the Society.

The Headquarters Offices of the Society are prepared to collect dues for foreign Societies, but cannot accept orders and subscriptions for publications not published by the American Mathematical Society itself.

All funds sent to the Headquarters Offices of the Society should be very carefully earmarked.

It is believed that at present the only two situations affected by this decision are the relations with the Indian Mathematical Society, at present handled by Professor P. T. Bateman, and the relations with the French Mathematical Society, at present handled by Professor R. M. Thrall. Both Professor Bateman and Professor Thrall have indicated their willingness now to turn over this work to the Society.

The Trustees of the Society wish to thank Professor Bateman and Professor Thrall most sincerely for their generosity in performing these services.

MICROFILM READERS FOR SALE BY THE SOCIETY. The Society has for sale some microfilm readers. These instruments were stocked some time ago in connection with a microfilm program for *Mathematical Reviews*. (The part of the program in which these instruments figured has been discontinued.) These readers are extremely good optically, but are a little cumbersome to use. The retail list price of the instruments was apparently about $80. To clear them out, the Society will sell them at only $25 apiece to members, express collect. There are only five of them left, so first come, first served.

PERSONAL ITEMS

Professor Richard Courant, New York University, has been elected to membership in the Royal Netherlands Academy of Sciences and Letters.

Professor L. W. Green of the University of Minnesota is on leave of absence for study and research at the Eidgenoessische Technische Hochschule in Zurich, Switzerland, on a grant from the American Swiss Society for Scientific Exchange.

Professor V. L. Klee, Jr. of the University of Washington has been awarded a Sloan Foundation Fellowship.

Professor E. E. Moise of the University of Michigan is on leave and is studying on a Guggenheim Fellowship at the Institute for Advanced Study.

Professor J. J. Stoker, Jr., University of Minnesota, received the Dannie Heineman Prize of $5,000 for his two books, "Non-linear Vibrations" and "Theory of Water Waves."

Dr. R. L. Vaught of the University of Washington has been promoted to an assistant professor and has been awarded a Fulbright Fellowship for 1956–57 for study at the University of Amsterdam.

Dr. Jack Warga of Electrodata, Pasadena, California has been granted a Chaim Weizmann Memorial Fellowship tenable at the Weizmann Institute of Science at Rehovoth, Israel for the coming year.

Associate Professor Daniel Zelinsky of Northwestern University has been granted a Guggenheim Fellowship and will be on leave of absence for the year at the Institute for Advanced Study.

The National Science Foundation has announced grants in mathematics to the following institutions, to support studies by the professors indicated: University of Michigan, R. C. Lyndon, R. M. Thrall; Princeton University, F. E. P. Hirzebruch; University of Utah, C. E. Burgess.

The National Science Foundation has announced a grant in electrical engineering to the following institution, to support studies by the individual indicated: University of Illinois, Mr. W. J. Fry.

Professor A. A. Albert of the University of Chicago has been appointed visiting professor at Yale University for the coming academic year.

Associate Professor R. D. Anderson of the Institute for Advanced Study has been appointed to a professorship at Louisiana State University.

Dr. H. I. Ansoff of the RAND Corporation has accepted a position as Development Planning Specialist with the Lockheed Aircraft Corporation of Burbank, California.

Mr. J. L. Bagg of Michigan State University has been appointed to

an assistant professorship at Florida State University.

Assistant Professor J. H. Barrett of Yale University has been appointed to an associate professorship at the University of Utah.

Dr. Lida K. Barrett of the University of Connecticut has been appointed a lecturer at the University of Utah.

Dr. Marjorie H. Beaty has been appointed to an assistant professorship at the University of South Dakota.

Professor Leonard Bristow of Wisconsin State College has been appointed to a professorship at the University of Santa Clara.

Dr. J. B. Butler of the University of California, Los Angeles, has been appointed to an assistant professorship at the University of Washington.

Mr. A. A. Caporaso of New York University has accepted a position as mathematician with International Business Machines Corporation, New York, New York.

Dr. W. C. Carter of Raytheon Manufacturing Company has accepted a position as manager, Systems Programming Department of the DATAmatic Corporation, Newton Highlands, Massachusetts.

Dr. C. C. Chang of Cornell University has been appointed to an assistant professorship at the University of Southern California.

Mr. Ward Cheney of the University of Kansas has accepted a position as Senior Research Engineer with Convair, San Diego, California.

Dr. C. J. Clark of the Continental Oil Company has accepted a position as research scientist with Lockheed Aircraft Corporation, Palo Alto, California.

Assistant Professor R. A. Clark of the Case Institute of Technology is on leave of absence and has been appointed to a visiting lectureship at Massachusetts Institute of Technology.

Dr. W. J. Coles of the Defense Department, Washington, D. C. has been appointed to an assistant professorship at the University of Utah.

Mr. E. H. Connell of Convair has accepted a position as senior scientist with Lockheed Aircraft Corporation, Sunnyvale, California.

Dr. J. B. Crabtree of the University of New Hampshire has been appointed to an associate professorship at Stevens Institute of Technology.

Professor C. H. Cunkle of the University of Idaho has accepted a position as senior research engineer with Convair, San Diego, California.

Professor L. M. Curtis of the Institute for Advanced Study has been appointed to an associate professorship at the University of Georgia.

Dr. Roberto Diaz-Fernandez of the University of California, Berkeley, has been appointed to an assistant professorship at the University of Puerto Rico.

Dr. James Eells, Jr. of the Institute for Advanced Study has been

appointed to an assistant professorship at the University of California, Berkeley, California.

Mr. L. W. Ehrlich of the University of Maryland has accepted a position as mathematician with Ramo-Wooldridge Corporation, Los Angeles, California.

Assistant Professor M. P. Epstein of Johns Hopkins University has accepted a position as mathematician with Bell Telephone Laboratories, Whippany, New Jersey.

Dr. J. M. G. Fell of the University of Chicago has been appointed to a research assistant professorship at the University of Washington under a grant from the Office of Naval Research.

Professor M. M. Flood of Columbia University has been appointed to a professorship at the University of Michigan, and is on leave of absence to serve as associate director of the Engineering Research Institute of the University of Michigan.

Dr. Joel Franklin of the University of Washington has accepted a position as senior mathematician with the ElectroData Division, Burroughs Corporation, Pasadena, California.

Dr. Thornton C. Fry, assistant to the president of Bell Telephone Laboratories, will retire on October 1, after more than forty years of service.

Mr. Albert Furman of Kansas State College of Agriculture and Applied Science has accepted a position as senior scientist with Lockheed Aircraft Corporation, Sunnyvale, California.

Dr. A. S. Galbraith of the Ballistic Research Laboratories, Aberdeen Proving Ground, has accepted a position as technical director at Eglin Air Force Base, Florida.

Dr. H. L. Garabedian of Westinghouse Corporation has accepted a position on the research staff of General Motors Corporation, Detroit, Michigan.

Dr. R. K. Getoor of Princeton University has been appointed to an assistant professorship at the University of Washington.

Dr. Wallace Givens of the University of Tennessee has been appointed to a professorship at Wayne State University.

Dr. R. D. Glauz of the University of California, Los Alamos Laboratory, has accepted a position as specialist with General Electric Company, Cincinnati, Ohio.

Dr. Felix Haas of the University of Connecticut has been appointed to an assistant professorship at Wayne State University.

Dr. Melvin Hausner of Brooklyn College has been appointed to an assistant professorship at Stevens Institute of Technology.

Dr. Peter Henrici of American University has accepted a position as

research associate with Numerical Analysis Research, University of California, Los Angeles, and has also been appointed to a visiting associate professorship at that University.

Associate Professor D. G. Higman of Montana State University is on leave and has been appointed a visiting assistant professor at the University of Michigan.

Dr. S. T. Hu of the University of Georgia has been appointed to a professorship at Wayne State University.

Professor Ralph Hull of Purdue University has accepted a position as mathematician-analyst with the Ramo-Wooldridge Corporation, Los Angeles, California.

Dr. E. R. Immel of the University of Wisconsin has been appointed to an assistant professorship at Georgia Institute of Technology.

Dr. R. P. Isaacs of the RAND Corporation has accepted a position as engineering mathematician with Hughes Aircraft Company, Culver City, California.

Mr. B. B. James of Boeing Airplane Company has accepted a position as research engineer with North American Aviation, Downey, California.

Dr. I. M. James of Oxford University has been granted a research fellowship at Caius College, Cambridge, England.

Dr. J. P. Jewett of the University of Texas has accepted a position as mathematical analyst with Knolls Atomic Power Laboratory, Schenectady, New York.

Assistant Professor J. W. Jewett of the University of Alabama has been appointed to an assistant professorship at the University of Georgia.

Miss Evelyn J. Jones of Yale University has accepted a position as staff associate with the Lincoln Laboratory, Massachusetts Institute of Technology.

Mr. T. W. Kampe of Pomona College has accepted a position as mathematician with Librascope, Incorporated, Glendale, California.

Assistant Professor N. D. Kazarinoff of Purdue University has been appointed to an assistant professorship at the University of Michigan.

Mr. B. C. Kenny of Vitro Corporation of America has accepted a position as senior engineer with Westinghouse Electric Corporation, Baltimore, Maryland.

Assistant Professor Erwin Kleinfeld of Ohio State University is on leave of absence and has been appointed a visiting lecturer at Yale University for the coming year.

Mr. E. E. Kohlbecker of the University of Illinois has been appointed to an assistant professorship at the University of Utah.

Dr. I. I. Kolodner of New York University has been appointed to a professorship at the University of New Mexico.

Dr. Bertram Kostant of the Institute for Advanced Study has been appointed to an assistant professorship at the University of California, Berkeley, California.

Dr. A. G. Kostenbauder of the University of Connecticut has been appointed to an assistant professorship at Syracuse University.

Mr. A. E. Labarre of the University of Wyoming has been appointed to an assistant professorship at the University of Idaho.

Mr. B. V. Lachapelle of Cornell University has been appointed a research associate at the University of Montreal.

Mr. F. P. Larkin of Fordham University has accepted a position as technical assistant with Western Electric Company, Incorporated, New York, New York.

Mr. L. L. Layton of Aberdeen Proving Ground has accepted a position as senior aerophysics engineer with Convair, Fort Worth, Texas.

Dr. C. E. Lemke of the Radio Corporation of America has been appointed to an assistant professorship at Rensselaer Polytechnic Institute.

Assistant Professor R. C. Lyndon of the University of Michigan is on leave of absence and has been appointed to a visiting associate professorship at the University of California, Berkeley, California.

Dr. E. W. Martin, Jr. of International Business Machines Corporation has been appointed to an associate professorship at Indiana University.

Dr. Ceslovas Masaitis of the University of Tennessee has accepted a position as mathematician with Ballistic Research Laboratories, Aberdeen Proving Ground, Maryland.

Assistant Professor C. W. McArthur of Alabama Polytechnic Institute has been appointed to an associate professorship at Florida State University.

Dr. P. J. McCarthy of the College of the Holy Cross has been appointed to an assistant professorship at Florida State University.

Mr. H. V. McIntosh of the Ballistic Research Laboratories has accepted a position as mathematician with RIAS, Incorporated, Baltimore, Maryland.

Dr. J. D. McKnight, Jr. of Convair has been appointed to an associate professorship at the University of South Carolina.

Professor E. B. McLeod of Oregon State College is on leave for the coming year for advanced study in Europe.

Dr. T. J. McMinn of the University of California, Berkeley, has been appointed to an assistant professorship at the University of Washington.

Mr. B. C. McQuarrie of the University of New Hampshire has been appointed a teaching missionary at Wasatch Academy, Mt. Pleasant, Utah.

Mr. E. A. Michael of the University of Washington has been promoted

to an associate professor and is on leave to spend the year at the Institute for Advanced Study.

Dr. Knox Millsaps of Massachusetts Institute of Technology has accepted a position as chief scientist with the Holloman Air Development Center, New Mexico.

Mr. R. P. Mitchell of White Sands Signal Corps Agency has accepted a position as mathematician with the Naval Ordnance Laboratory, Corona, California.

Mr. Dewey Moore of the Naval Ordnance Laboratory has accepted a position as senior engineer with the Glenn L. Martin Company, Baltimore, Maryland.

Assistant Professor J. C. Morelock of Alabama Polytechnic Institute has been appointed to a professorship at King College.

Mr. C. R. Morris of the Lockheed Aircraft Corporation has accepted a position as associate professor with the Detroit Institute of Technology, Detroit, Michigan.

Mr. D. D. Morrison of Wayne State University has accepted a position as a member of the technical staff of Ramo-Wooldridge Corporation, Los Angeles, California.

Mr. H. D. Moyer has accepted a position as associate engineer with Douglas Aircraft Company, Holloman Air Force Base, New Mexico.

Dr. M. E. Muller of Cornell University has accepted a position as senior mathematician with International Business Machines Corporation, New York, New York.

Dr. W. L. Nicholson of Princeton University has accepted a position as research statistician with General Electric Company, Richland, Washington.

Dr. Albert Nijenhuis of the University of Chicago has been appointed to an assistant professorship at the University of Washington.

Dr. Walter Noll of the University of Southern California has been appointed to an associate professorship at Carnegie Institute of Technology.

Dr. R. Z. Norman of Princeton University has been appointed to an assistant professorship at Dartmouth College.

Dr. Margaret Owchar of the Manitoba Cancer Relief and Research Institute has been appointed to an assistant professorship at Bemidji State Teachers College.

Dr. R. H. Owens of the Office of Naval Research has been appointed to an assistant professorship at the University of New Hampshire.

Mr. W. H. Peirce of the University of Wisconsin has been appointed to an assistant professorship at Michigan State University.

Dr. E. J. Pellicciaro of Duke University has been appointed to an assistant professorship at the University of Delaware.

Dr. A. J. Penico of Tufts University has accepted a postiton as advanced research mathematician with Sylvania Electric Products, Mountain View, California.

Dr. R. G. Pohrer of the Chemical Corps, U. S. Army, has been appointed to the staff of the Mathematics Division of the Air Force Office of Scientific Research, Washington, D. C.

Dr. E. C. Posner of the University of Chicago has accepted a position as a member of the technical staff with Bell Telephone Laboratories, New York, New York.

Mr. E. J. Putzer of the University of Minnesota has accepted a position as staff scientist with Convair, San Diego, California.

Professor G. Y. Rainich of the University of Michigan has been retired with the title of professor emeritus, and has been appointed editorial consultant on the staff of *Mathematical Reviews*, American Mathematical Society, Providence, Rhode Island.

Dr. Anthony Ralston of the Massachusetts Institute of Technology has accepted a position as a member of the technical staff with the Bell Telephone Laboratories of Whippany, New Jersey.

Dr. Edgar Reich of the RAND Corporation has been appointed to an assistant professorship at the University of Minnesota.

Mr. J. G. Renno, Jr. of the University of Wisconsin has accepted a position as a member of the technical staff with the Ramo-Wooldridge Corporation of Los Angeles, California.

Associate Professor H. G. Rice of the University of New Hampshire has accepted a position as research mathematician with the Westinghouse Research Laboratories, Pittsburgh, Pennsylvania.

Assistant Professor J. W. Riner of St. Peter's College has been appointed to an assistant professorship at St. Louis University.

Dr. D. W. Robinson of Case Institute of Technology has been appointed to an assistant professorship at Brigham Young University.

Dr. Hartley Rogers, Jr. of Harvard University has been appointed to an assistant professorship at Massachusetts Institute of Technology.

Dr. P. J. Roquette of the Institute for Advanced Study has been appointed a privatdozent at the University of Hamburg, Germany.

Mr. P. T. Schaefer of the University of Rochester has accepted a position as assistant professor with the New York State College for Teachers, Albany, New York.

Associate Professor Alfred Schild of Carnegie Institute of Technology has accepted a position as advisory mathematician with Westinghouse Research Laboratories, Pittsburgh, Pennsylvania.

Dr. Lowell Schoenfeld of the University of Illinois has accepted a position as research mathematician with the Westinghouse Research

Laboratory of East Pittsburgh, Pennsylvania.

Dr. Henry Sharp, Jr. of the Georgia Institute of Technology has accepted a position as assistant professor with Emory University.

Dr. Bernard Sherman of the University of California, Los Angeles, has accepted a position as research mathematician with Westinghouse Research Laboratories, Pittsburgh, Pennsylvania.

Mr. Seymour Sherman of the Avco Manufacturing Corporation has accepted a position as a staff member with the Dian Laboratories, New York, New York.

Assistant Professor A. L. Shields of Tulane University has been appointed to an assistant professorship at the University of Michigan.

Mr. G. S. Silberman of the United States Army has accepted a position as teaching assistant with the University of California, Berkeley, California.

Dr. I. M. Singer of the University of California, Los Angeles, has accepted a position as assistant professor with the Massachusetts Institute of Technology.

Dr. Paul Slepian of Brown University has accepted a position as a member of the technical staff with Ramo-Wooldridge Corporation, Los Angeles, California.

Mr. R. B. Smith of Yale University has accepted a position as member of the technical staff of Bell Telephone Laboratories, Whippany, New Jersey.

Professor W. H. Spragens of the University of Mississippi has been appointed to an associate professorship at the University of Louisville.

Associate Professor Ruth W. Stokes of Syracuse University is on leave of absence and has been appointed a visiting lecturer at the American University at Beirut, Lebanon.

Professor Sussman of California State Polytechnic College has been appointed to a professorship at the University of Santa Clara.

Dr. G. H. Swift of Duke University has accepted a position as applied science representative with International Business Machines Corporation, Seattle, Washington.

Dr. W. C. Swift of Cornell University has accepted a position as member of the technical staff of Bell Telephone Laboratories, Murray Hill, New Jersey.

Mr. Robert Tates of Syracuse University has accepted a position as engineer with the Glenn L. Martin Company, Baltimore, Maryland.

Associate Professor H. E. Taylor of Florida State University is on leave of absence and has been appointed a visiting associate professor at the University of Chicago.

Dr. Theodor Teichmann of Los Angeles has accepted a position as department head with Lockheed Aircraft Corporation, Sunnyvale, California.

Dr. Leonard Tornheim of the University of California, Berkeley, has accepted a position as research mathematician with the California Research Corporation, Richmond, California.

Dr. B. W. Volkman of the University of Utah has been appointed to a visiting assistant professorship at the University of California, Los Angeles.

Assistant Professor L. E. Ward, Jr. of the University of Utah has accepted a position as mathematician with the U. S. Naval Ordnance Test Station, China Lake, California.

Assistant Professor M. T. Wechsler of the State College of Washington has been appointed to an assistant professorship at Wayne State University.

Dr. J. V. Wehausen, formerly executive editor of *Mathematical Reviews*, American Mathematical Society, has been appointed a professor of naval architecture at the University of California, Berkeley.

Dr. Chien Wenjen of Knoxville College has been appointed to an assistant professorship at Texas Technological College.

Professor R. L. Wilder of the University of Michigan is on Sabbatical Leave for 1956–57.

Professor L. T. Wilson of State Teachers College, Jacksonville, Alabama has been retired with the title professor emeritus, and has been appointed to a professorship at Doane College.

Mr. C. S. Wolfe of the University of Maryland has been appointed to an assistant professorship at the U. S. Naval Academy.

Dr. Ti Yen of Lehigh University has been appointed to an assistant professorship at Illinois Institute of Technology.

Dr. Fumio Yagi of Ballistic Research Laboratories has accepted a position as senior research engineer with the Jet Propulsion Laboratory of the California Institute of Technology.

Mr. F. L. Zarnfaller of the Olin Mathieson Chemical Corporation has accepted a position as associate mathematician with International Business Machines Corporation, Research Laboratories, Poughkeepsie, New York.

Mr. J. A. Zilber of the University of Illinois has been appointed a lecturer at Northwestern University.

Dr. R. E. Zink, U. S. Army, has been appointed to an assistant professorship at Purdue University.

The following promotions are announced:

T. M. Apostol, California Institute of Technology, to an associate

professorship.

E. L. Arnoff, Case Institute of Technology, to an associate professorship.

M. G. Arsove, University of Washington, to an associate professorship.

D. H. Ballou, Middlebury College, to a professorship.

F. C. Biesele, University of Utah, to a professorship.

F. H. Brownell, University of Washington, to an associate professorship.

C. E. Burgess, University of Utah, to an associate professorship.

R. E. Chamberlin, University of Utah, to a professorship.

Donald Darling, University of Michigan, to an associate professorship.

C. R. De Prima, California Institute of Technology, to a professorship.

H. A. Forrester, University of Washington, to an assistant professorship.

W. B. Fulks, University of Minnesota, to an associate professorship.

F. W. Gehring, University of Michigan, to an assistant professorship.

G. E. Hay, University of Michigan, to a professorship.

J. G. Herriot, Stanford University, to a professorship.

L. Aileen Hostinsky, Pennsylvania State University, to an associate professorship.

Wilfred Kaplan, University of Michigan, to a professorship.

J. R. F. Kent, Harpur College, State University of New York, to a professorship.

Fulton Koehler, University of Minnesota, to a professorship.

G. L. Krabbe, Purdue University, to an assistant professorship.

Bernard Lindgren, University of Minnesota, to an assistant professorship.

Joseph Milkman, United States Naval Academy, to an associate professorship.

R. L. Plunkett, Florida State University, to an associate professorship.

P. D. Ritger, Stevens Institute of Technology, to an assistant professorship.

J. B. Serrin, University of Minnesota, to an associate professorship.

R. W. Sloan, Carleton College, to an assistant professorship.

M. L. Stein, University of Minnesota, to an associate professorship.

J. E. Thompson, University of Minnesota, to an assistant professorship.

J. H. Walter, University of Washington, to an assistant professor-

ship.

A. L. Whiteman, University of Southern California, to a professorship.

J. H. Wolfe, University of Utah, to a professorship.

The following appointments to instructorships are announced:

Boston University: Mr. J. T. Morse; Bowling Green State University: Mr. W. G. Spohn, Jr.; University of Chicago: Dr. F. G. Brauer, Dr. B. L. Reinhart, and Dr. Stephen Smale; Columbia University: Dr. Lawrence Goldman; Fresno State College: Mr. D. J. Ewy and Dr. T. C. Kipps; Hunter College: Miss Louisa S. Grinstein; Illinois Institute of Technology: Mr. Barth Pollak; Iowa State College: Mr. D. S. Adorno; St. John's University: F. W. Wolock; Louisiana State University: Mr. N. J. Rothman; University of Michigan: Dr. W. F. Davison and Mr. Edward Halpern; University of Oregon: Dr. L. W. Anderson and Mr. A. T. Bharucha-Reid; Pomona College: Mr. H. J. Davis; Princeton University: Mr. H. P. McKean, Jr.; Purdue University: Dr. M. J. Mansfield; University of Rochester: Mr. J. C. Mairhuber; College of St. Thomas: Mr. S. J. O'Neill; University of Washington: Mr. R. M. Blumenthal and Mr. R. T. Ives; Western Reserve University: Mr. R. J. Pipino; Yale University: Dr. G. B. Seligman.

Deaths

Mr. Cyrus Giles Hill of Chicago, Illinois, died on February 5, 1956 at the age of sixty-six years. He had been a member of the Society for fourteen years.

Dr. William Marshall, professor emeritus and former head of the department of mathematics at Purdue University, died on July 31, 1956, at the age of eighty-seven years.

NEW PUBLICATIONS

Andreotti, A. See Conforto, F.

Bagemihl, F. See Knopp, K.

Battin, R. H. See Laning, J. H.

Behnke, H. *Vorlesungen über allgemeine Zahlentheorie.* With the cooperation of R. Remmert. Münster, Aschendorff, 1956. 4 + 180 pp. 15.00 DM.

Bilimović, A. *Dinamika čvrstog tela.* [Dynamics of a rigid body.] Belgrade, Srpska Akademiya Nauka, 1955. 11 + 176 pp.

Birger, I. A. *Nekotorye matematičeskie metody rešeniya inženirnyh zadač.* Moscow, Gosudarstv. Izdat. Oboronnoĭ Promyšlennosti, 1956. 151 pp. 5.70 rubles.

Conforto, F. *Abelsche Funktionen und algebraische Geometrie.* Rev. and ed. by W. Gröbner, A. Andreotti, and M. Rosati. Berlin, Springer, 1956. 11 + 276 pp. 41.80 DM.

Coppinger, J. M. See *Operations research for management.*

Erdélyi, A. *Asymptotic expansions.* New York, Dover, 1956. 6 + 108 pp. $1.35.

Friedman, B. *Principles and techniques of applied mathematics.* New York, Wiley, 1956. 9 + 315 pp. $8.00.

Gröbner, W. See Conforto, F.

Hohenberg, F. *Konstruktive Geometrie für Techniker.* Vienna, Springer, 1956. 9 + 272 pp.

Knopp, K. *Infinite sequences and series.* Trans. by F. Bagemihl. New York, Dover, 1956. 5 + 186 pp. Paperbound, $1.75; clothbound, $3.50.

Knopp, K. *Szeregi nieskończone.* [Infinite series.] Warsaw, Państwowe Wydawnictwo Naukowe, 1956. 608 pp. 48.60 zł.

Kratzer, A. *Relativitätstheorie.* Münster, Aschendorff, 1956. 6 + 234 pp. 18.00 DM.

Laning, J. H., and Battin, R. H. *Random processes in automatic control.* New York, McGraw-Hill, 1956. 9 + 434 pp. $10.00.

McCloskey, J. F. See *Operations research for management.*

Mandel'broĭt, S. *Primykayuščie ryady. Regulyarizaciya posledovatel'nosteĭ. Priloženiya.* Moscow, Izdat. Inostrannoĭ Literatury, 1955. 268 pp., 12 tables.

Operations research for management. Vol. II. *Case histories, methods, information handling.* Ed. by J. F. McCloskey and J. M. Coppinger. Baltimore, Johns Hopkins Press, 1956. 36 + 563 pp. $8.00.

Patterson, E. M. *Topology.* New York, Interscience, 1956. 8 + 128 pp. 8s, 6d.

Patterson, G. N. *Molecular flow of gases.* New York, Wiley, 1956. 10 +

217 pp. $7.50.

Remmert, R. See Behnke, H.

Rosati, M. See Conforto, F.

Russell, B. A. W. *An essay on the foundations of geometry.* New York, Dover, 1956. 20 + 201 pp. Paperbound, $1.50; clothbound, $3.25.

Van Laethem, M. *Une méthode nouvelle et générale de calcul des intégrales généralisées. Théorie et pratique à l'usage des mathématiciens, physiciens et ingénieurs.* Louvain, Nauwelaerts, 1956. 8 + 180 pp., 3 plates. 250 Belgian fr.

Vogel, T. *Physique mathématique classique.* Paris, Colin, 1956. 214 pp.

Wiener, N. *I am a mathematician. The later life of a prodigy.* Garden City, Doubleday, 1956. 380 pp.

Théodore